

REMARKS/ARGUMENTS

Applicants' representative would like to thank Examiners Nwaonicha and Jafar for the courteous and helpful discussion of the issues in the present application on February 28, 2008. Applicants would like to thank the Examiners for the indication that the examples and comparative examples in the present application show unexpected results relative to Jenker et al. The above amendments and following remarks summarize and further expand on the content of that discussion.

Claims 1-7 and 9-18 are active in this application, claim 8 having been cancelled. Claim 1 has been amended to specify that the Pt-containing catalyst consists of hexachloroplatinic acid or a Pt(0) complex, thus restricting the catalyst of the present invention to exclude co-catalysts. Other claims have been amended to correct minor typos, particularly in various chemical groups or abbreviations. No new matter has been added by these amendments.

The present invention relates to a process for preparing a silicon compound bearing at least one fluoroalkyl group by hydrosilylation of a fluoroolefin in the presence of a Pt-containing hydrosilylation catalyst, the process comprising initially charging and heating a hydrogenchlorosilane; metering in the fluoroolefin and reacting the reaction mixture; and subsequently isolating the hydrosilylation product, and wherein the Pt-containing hydrosilylation catalyst consists of a hexachloroplatinic acid or a Pt(0) complex. Applicants have found that by performing the steps in the specific order claimed, the process provides surprising improvements in yield and particularly provides a reaction that is relatively insensitive to impurities in the fluoroolefin.

The claims stand rejected under 35 U.S.C. 102(b) over Jenker et al, or under 35 U.S.C. 103 over Jenker et al. Jenker et al disclose a method for the production of fluoroalkylsilicon compounds, but the order of steps in the method of Jenker et al are

reversed relative to the present invention. In particular, Jenker discloses adding the fluoroolefin, plus the Pt catalyst, followed by addition of the hydrogenchlorosilane. This is not the present invention. Further, Applicants have provided comparative examples within the present specification showing that when the order of the present process steps is used, one obtains consistently higher yields of the final product that is relatively insensitive to the amount of impurities in the fluoroolefin, whereas when the order of addition of Jenker et al is used, the yield is lower and widely varies depending on the level of impurities. In particular, the present specification contains the following examples and comparative examples:

Example 1: Uses order of steps of the present invention with a fluoroolefin containing 170ppm of I content: result = 82% yield

Comparative Ex. 1: uses order of steps of Jenker using same 170ppm of I content fluoroolefin as in Example 1: result = 2.6% yield

Example 2: uses order of steps of the present invention with a fluoroolefin containing 8 ppm of I content: result = 94% yield

Example 3: uses order of steps of the present invention with a fluoroolefin containing 6.5 ppm of I content: result = 93% yield

Comparative Ex. 2: uses order of steps of Jenker with fluoroolefin containing 6.5 ppm of I content (same as in Ex. 3 above): result = 87%

Thus, it is clear that the present invention provides significant improvements in yield and the process is relatively insensitive to the level of impurities present in the fluoroolefin component, contrary to the order of steps disclosed by Jenker et al. Accordingly, these results are sufficient to rebut any asserted case of obviousness over Jenker and the rejection should be withdrawn.

During the discussion of February 28, 2008, the Examiners brought to Applicants' representative's attention US Patent 4,089,882 to Takamizawa et al. This reference discloses the preparation of fluoroalkylsilanes by reaction of an organohydrogensilane with a fluoroolefin in the presence of a **binary catalyst** composed of a platinum compound and stannous chloride. While the order of addition of Takamizawa et al may be similar to that of the present invention, the catalyst is required to be a binary catalyst containing both a platinum compound and stannous chloride as a cocatalyst. The present invention, on the other hand, requires the use of only a platinum compound, either hexachloroplatinic acid or a Pt(0) complex, without the presence of any cocatalyst. Accordingly, Takamizawa et al cannot suggest the present invention or the advantages achieved by using the present invention order of steps with only the Pt catalyst present. As such, no rejection should be made over Takamizawa et al.

The claims stand rejected under 35 U.S.C. 112, second paragraph. This rejection has been obviated by the present amendments and where not obviated, is respectfully traversed. The Examiner has objected to the use of the terms "abs" and "1 t". It is submitted that these are recognized terms indicating "absolute" and "1 metric ton", respectively. Accordingly, their use is proper and acceptable and the rejection should be withdrawn.

The objection to Claim 8 has been obviated by its cancellation.

Application No. 10/583,553

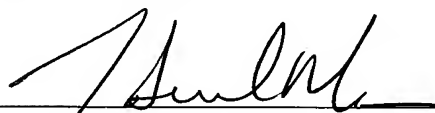
Reply to Office Action of November 13, 2007

Applicants submit that the application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'J. Derek Mason', is written over a horizontal line.

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